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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,930	02/17/2004	Zhu Guifang	yeh-pt001	9370
7590	06/29/2004		EXAMINER	
Kao H. Lu 686 Lawson Ave. Havertown, PA 19083			LUU, TUYET PHUONG PHAM	
			ART UNIT	PAPER NUMBER
			3673	
DATE MAILED: 06/29/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/779,930

Applicant(s)

GUIFANG, ZHU

Examiner

Teri P. Luu

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

Claim 1 is objected to because of the following informalities: in line 4, --front-- should be inserted for "font". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 1,351,480 to Leigh in view of U.S. Patent No. 1,307,825 to Marshall, U.S. Patent No. 6,564,412 to Henley et al. and U.S. Patent No. 6,568,011 to Fisher et al.

Leigh discloses an inflatable mattress comprising an outer shell (1, 2) having a plurality of internal built-in parallel separators (7) that form separate parallel pathways (8) inside of the outer shell and two conduits (not referenced) wherein a first conduit is located at a front opening and a second conduit is located at a back opening (see Fig. 6) of these passageways. Leigh further discloses an inflatable longitudinal inner chamber (9) having an air inlet (10) and means for inserting evenly the inner chamber inside the outer shell along the pathways to provide an even firm support of the mattress.

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Leigh fails to teach the separators being I-beam. However, Marshall discloses a mattress comprising an outer shell having a plurality of built-in internal parallel I-beam separators (5) that form separate parallel pathways inside the outer shell. One of ordinary skill in the art concerned with increasing the height of the mattress would have found it obvious to replace the dividing partition with I-beams.

Leigh also fails to teach zippers installed on the conduit-sides of the outer shell. However, Leigh does teach the use of "any suitable kind of fastenings," specifically "a frictionally acting split plug 11, and a cooperating socket 12, into which the plug is spring by hand pressure." Henley et al. teaches that it is well known in the mattress art to secure a top cover (18) to a base (12) with suitable fasteners such as zipper, snaps, or other coupling mechanism. Therefore, because these two coupling mechanisms were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute a zipper for the snap fasteners.

Leigh also fails to disclose the inflatable longitudinal inner chamber having an air outlet. Fisher discloses an inflatable chamber (140) comprising an air inlet (110) and an air outlet (112). The air outlet has a wide opening for fast deflation. One of ordinary skill in the art concerned with rapidly deflating the longitudinal chamber would have found it obvious to provide Leigh with an air outlet.

As concerns claim 3, Leigh discloses the shell having at least 7 to 9 parallel separators.

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Claim 2 is rejected under 35 U.S.C. 103(a) as being obvious over Leigh in view of Marshall, Henley et al. and Fisher et al. as applied to claim 1 above, and further in view of U.S. Patent No. 3,772,717 to Yuen et al.

Leigh fails to teach the air inlet and the air outlet being located at opposite tip ends of the chamber. Fisher teaches the air inlet and the air outlet being located at the same end of the air chamber. However, it would have further been obvious to one having ordinary skill in the art at the time the invention was made to relocate the air outlet so that the inlet and outlet are at opposite tips of the air chamber, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Leigh, as modified, teaches that the inner chamber is a continuous length of rubber tubing and thus fails to disclose PVC-like material. However, Yuen et al. teaches an inflatable mattress and cushion "made from any suitable material provided it is flexible and impermeable to the fluids being used in the mattress. Suitable materials include rubber, plastics such as PVC and the like." Thus, Yuen et al. teaches rubber and PVC-like material being equivalents in the mattress art. Therefore, because these materials were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute PVC-like material for the rubber.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Teri Pham Luu** whose telephone number is **(703) 305-7421**. The examiner can be best reached Monday-Friday from 6:30 am to 2:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Heather Shackelford**, can be reached at **(703) 308-2978**.

Submission of your response by facsimile transmission is encouraged. Technology Center 3600's facsimile number for all official papers is **(703) 872-9306**. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP § 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitted by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP § 512). The following is an example of the format the certification might take:

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(Typed or printed name of person signing this certificate)

\_\_\_\_\_  
(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP § 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be directed to **heather.shackelford@uspto.gov**.

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed expressed waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Teri Pham Luu**  
**Primary Examiner**

tpl  
June 21, 2004